

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Claim 20 was objected to for an informality. Claim 20 has been amended to change “the Advance Encryption Standard” to “an Advanced Encryption Standard.” As a result, withdrawal of this objection is respectfully requested.

Claims 14-17 were rejected under 35 USC 112, second paragraph, as being indefinite. Claims 14-17 have been amended to correct the language pointed out by the Examiner to recite “acquiring the time-to-live of the IP packet received from the first communication device.”

Claims 16 and 17 were rejected under 35 USC 101 as being directed to non-statutory subject matter. This rejection is traversed. The Examiner asserts that claim 16 recites a computer program per se without instructions. Claim 16 as amended clearly recites the method steps, i.e., instructions, which are caused to be performed by execution of the computer program. The Examiner asserts that Claim 17 recites a computer program without the use of a computer readable medium. Claim 17 has been amended to recite that the LSI includes a computer readable medium. Accordingly, it is submitted that claims 16 and 17 are in compliance with 35 USC 101.

Additionally, claims 1 and 14-17 have been amended to change the phrase “transmission/reception” to “content transmission/reception.”

Claims 1, and 14-17 were rejected under 35 USC 102(e) as being anticipated by Beaumont (US 6,959,333). This rejection is traversed and is inapplicable to claims 1, and 14-17 as amended for the following reasons.

Claims 1 and 14-17 include recitations directed to judging whether the acquired time-to-live (TTL) is less than or equal to a pre-stored comparison value, and conducting transmission/reception only when it is judged that the acquired TTL is less than or equal to the pre-stored comparison value, and not conducting transmission/reception when it is judged that the acquired TTL is not less than or equal to the pre-stored comparison value.

These claimed features enable the protection of the rights of a content holder. In order to protect the rights of a content holder, the content must be securely

transmitted/received between devices that have valid rights. However, even when a content is being transmitted/received between valid rights-holding devices via a secure communication channel, the number of relay devices increases as the communication distance between the transmission device and the reception device grows longer, and there is a possibility of a relay device suffering an external attack, and the content being stolen mid-transmission. There is therefore a greater danger of a content being stolen while on the communication channel by a malicious third party as the communication distance grows longer.

In view of this, in the present invention, content transmission/reception is conducted only when the communication distance is short, and is suppressed when the communication distance is long. The TTL values recited in the claims can be used to judge communication distances. The present invention therefore reduces the danger of a content being stolen while on a communication channel by a third party, thereby protecting the rights of the content holder, while achieving the superior effect of enabling provision of the content to users in a range that is limited to a certain extent.

In contrast, Beaumont teaches “a content delivery system for a content provider that comprises three content delivery servers for delivering content, a preference data base for storing estimated distance between each of the three content delivery servers and a client, and a content provider DNS for mapping the name of the content provider to the addresses identifying the three content delivery servers and selecting an address identifying one of the three content delivery servers to deliver the content that has a shortest estimated distance to the client in the preference data base.” Beaumont, column 1, line 65 to column 2, line 7.

Furthermore, Beaumont teaches that “the content provider DNS dynamically assigns the time-to-live (TTL) value to each content delivery server associated with a client. The TTL assigned to a content delivery server associated with a client is a function of the estimated distance from the content delivery server to the client.” Id at column 2, lines 8-11.

In other words, the invention taught by Beaumont determines, from among a plurality of content delivery servers, the content delivery server that is a shortest estimated distance from the client, and transmits content from the determined content

delivery server to the client. The invention taught in Beaumont also uses TTL values, in order to determine the server that is the shortest estimated distance from the client.

However, Beaumont does not disclose or suggest judging whether the acquired time-to-live is less than or equal to a pre-stored comparison value or conducting transmission/reception only when it is judged that the acquired time-to-live is less than or equal to the pre-stored comparison value and that conducting content transmission/reception when it is judged that the acquired TTL is not less than or equal to the pre-stored comparison value as recited in each of claims 1 and 14-17.

The invention taught by Beaumont, which necessarily conducts content transmission/reception after determining the closest estimated server device based on a TTL value, is therefore different from the present inventions recited in claims 1 and 14-17, which suppress content transmission/reception in certain situations.

Also, Beaumont teaches that the server estimated to be the shortest communication distance away from the client is used to transmit content to the client, and in actuality, there may be cases in which this communication distance is very far. In such a case, given that the content would pass through a number of relay devices on the communication channel, there is a greater danger that the content would be stolen by a third party not having legitimate rights by an attack on one of the relay devices.

However, the present invention recited in claims 1 and 14-17 provide that content transmission/reception is conducted only if the TTL is less than or equal to a pre-stored comparison value and that transmission/reception is not conducted when the TTL is not less than or equal to the pre-stored comparison value. Therefore, the present invention reduces the danger of the content being stolen while on the communication channel by a third party, and achieving a superior protection of the rights of the content holder.

In view of the above distinctions, claims 1 and 14-17 are not anticipated by Beaumont.

Claims 5, 6 and 20 were rejected under 35 USC § 103(a) as being unpatentable over Beaumont in view of Joyner (US 2003/0108205).

Claims 5, 6 and 20 depend from claim 1. As discussed above, Beaumont does not disclose the recited features of claim 1. Joyner does not provide the missing disclosure by Beaumont of the features recited in claim 1, nor was Joyner relied on by the Examiner

as disclosing such features. Accordingly, no obvious combination of Beaumont and Joyner would result in the invention recited in claim 1, or the inventions recited in claims 5, 6 and 20 which depend from claim 1.

Joyner is directed to a system and method of providing encrypted data to a device in which one or more public keys are received from the device and then validated. A request for the encrypted data is received from the device, and the encrypted data and a symmetric key used to encrypt the data is retrieved. The symmetric key is then encrypted using each of the one or more public keys. The one or more encrypted symmetric keys and the encrypted data are then sent to the device.

The structure describing Joyner enables encrypted data to be provided to a device, where the encrypted data can only be used by the receiving device. However, Joyner does not disclose or in any way suggest judging whether an acquired TTL is less than or equal to a pre-stored comparison value and conducting transmission/reception only when it is judged that the acquired TTL is less than or equal to the pre-stored comparison value and not conducting transmission/reception when the acquired TTL is not less than or equal to the pre-stored comparison value.

Thus, while Joyner discloses providing encrypted data to a device, where the encrypted data can only be used by the receiving device, Joyner does not disclose or suggest the features recited in claim 1 as discussed in detail above. Accordingly, no obvious combination of the disclosures of Beaumont and Joyner would include the features recited in claims 1, 5, 6 and 20. Thus, no obvious combination of Beaumont and Joyner would result in, or otherwise render obvious, the inventions recited in claims 1, 5, 6 or 20 of the present application.

Claims 18 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Beaumont in view of Ishiguro (US 2003/0105956). This rejection is traversed and is inapplicable to claims 18 and 19 as amended.

As discussed above, Beaumont fails to disclose all the features recited in claim 1. Claims 18 and 19 depend from claim 1. Ishiguro does not provide the missing disclosure by Beaumont of the features recited in claim 1 as discussed above, nor was Ishiguro relied on as providing such disclosure. Thus, no obvious combination of the disclosure of Beaumont and Ishiguro would include all of the claimed features of claims 1, 18 and 19.


Therefore, no obvious combination of Beaumont and Ishiguro would result in, or otherwise render obvious, the inventions recited in claims 1, 18 and 19 of the present application.

In view of the above amendments and remarks, it is submitted that claim 1, 5, 6, and 14-20 are allowable over the prior art of record, and that the present application is therefore in condition for allowance.

The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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